Infrared Light Switch

035

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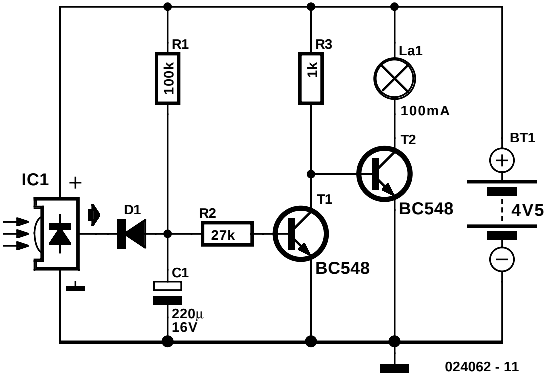
Inexpensive receivers for standard infrared remote control units for television sets and video recorders are available in the form of integrated circuits. Normally, a computer or microcontroller looks after decoding the light signals. However, this circuit shows that there are alternatives. It reacts to an IR signal, or at least to a signal sent with a carrier frequency of 36 kHz (other types of ICs are available for other frequencies). When such a signal is received, the infrared receiver IC discharges the capacitor, causing the first transistor to be cut off



and the second one to conduct. The lamp goes on and remains on until the IR signal stops and the capacitor recharges to the base–emitter voltage of the connected transistor via the 100-kΩ resistor.

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